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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/801,425
Filing Date: March 16, 2004
Appellant(s): DUNNE ET AL.

Laser Technology, Inc.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/3/09 appealing from the Office action mailed 11/07/08.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claim 1-12, 23-24 and 26-31.

Claims 13-22 and 25 have been canceled.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct with caveat that 'automatically' is not claimed, is not inherent and is not implied.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6059672	Zeiner-Gundersen	5-2000
5933224	Hines	8-1999
5779566	Wilens	7-1994
5294110	Jenkins	3-1994
5283732	Mauritz	2-1994
4136394	Jones	1-1979

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 23, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeiner-Gundersen in view of Wilens (5779566) and Hines (5933224). This holding is maintained from paragraph 3 of Final Official Action mailed 11/7/08 as re-emphasized in Advisory mailed 3/8/09 and reiterated as clarified next. Reply to Appellants' asserted patentability is provided below and incorporated herein. Zeiner-Gundersen discloses a instrument and method teaching entering at least one club type and associated representative user range for said at least one club type to a data store associated with a range finding instrument (abstract, 2:13-55, 3:6-67, 4:55-5:7, 5:58-6:4, 6:43-44, figs 1-5, ref 14), storing in a data store said at least one club type and associated representative user range (abstract, 2:13-55, 3:6-17 and 39-67, 5:58-6:4, figs 1-5, claim 1-2 therein), determining a range to a selected point on a golf course with said range finding instrument such as using a short distance measuring means as a laser for short distances (abstract, 2:13-55, 3:6-17 and 39-67, 4:27-31, 4:61-5:7, 5:19-20, 6:43-

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44, figs 1-5), determining an inclination to said selected point on said golf course with a tilt sensor in the range-finding instrument (abstract, 2:13-55, 3:6-17 and 39-67, 4:19-38, 5:26-35, figs 1-5), determining wind speed and direction with a wind speed sensor and directional sensor in the range-finding instrument (abstract, 2:13-55, 3:6-17 and 39-67, 4:39-47, figs 1-5), entering other factors in the range-finding instrument such as ground condition (abstract, 2:13-55, 3:6-17 and 39-67, 4:55-5:17, figs 1-5), extrapolating a suggested club type appropriate to said determined range from said at least one club type and associated representative user range, inclination, wind speed and direction and other factors (abstract, 2:13-55, 3:6-6:18, esp. 5:23-25), and displaying said suggested club type to a user of said range finding instrument (abstract, 2:13-55, 3:56-5:7, 5:23, 6:5-7:25, figs 1-5). The manner of displaying suggested club type is not specified to preclude manner of displaying club type taught by Zeiner-Gundersen. Zeiner-Gundersen lacks disclosing the other factors being golf ball type, altitude, and barometric pressure. However, the claimed other factors are each known extrinsic factors that influence player performance as evidenced by Wilens (abstract, 2:20-5:35, 7:17-27, 11:1-4, 12:28-33, 12:60-13:28, 13:59-16:39, figs. 1-41) that discloses a computerized golf data reporter, advisor unit and method teaching use/displaying of extrinsic factors such as golf ball type, altitude, and barometric pressure for providing golf advice of club type based upon extrinsic factors that effect player performance where the display is operative to display such factors as in evidence therein (abstract, 2:20-5:35, 7:17-27, 11:1-4, 12:28-33, 12:60-13:28, 13:59-16:39, figs 2-3, 5-6, 9, 12, 24-27, ref 14). Wilens is analogous art at least due to either being in the field of applicant's endeavor of a method and instrument to provide golf advice or, for being reasonably pertinent to the particular problem with which the applicant was concerned of an instrument and method

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using extrinsic factors as ‘other factors’ to provide golf club advice. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The level of ordinary skill in the art is as representative of the skill level of the aforementioned references. Thus, in consideration of US Supreme Court decision in KSR, because Zeiner-Gundersen and Wilens each teach methods of player input of other factors such as ground condition to obtain golf club advice based on extrinsic other factors entered, it would have been obvious to an artisan at a time prior to the invention to apply the process of entering other factors of golf ball type, altitude and barometric pressure to obtain golf club advice as taught by Wilens to improve the golf instrument and method of Zeiner-Gundersen for the predictable result of extrapolating golf club advice based on extrinsic other factors that effect player performance (abstract, 2:20-5:35, 7:17-27, 11:1-4, 12:28-33, 12:60-13:28, 13:59-16:39, figs. 1-41). Essentially, the invention with claimed other factors fails to critically distinguish over the combined teachings of Zeiner-Gundersen with Wilens for a method and instrument that extrapolates a suggested golf club type appropriate to the determined range from entered club type, associated user range, inclination, wind speed and other extrinsic factors that effect golf player performance.

Regarding claim 29 and 31, Zeiner-Gundersen in view of Wilens further includes displaying inclination and other factors when displaying range as suggested by Wilens (as stated in evidence above incorporated herein) and Zeiner-Gundersen determines cross-lope without having user stand at a right angle to ball by use of a compass (abstract, 2:13-55, 4:19-38, 5:26-7:25, figs 1-5).

Further, Zeiner-Gundersen discloses use of a short distance measuring means for short distances to suggest club type as an iron such as wedge or putter (2:49-51, 6:43-44) and a

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fairway distance measurement means for suggesting club type of wood or iron for longer than short range play where the measuring/measurement means is performing same function (i.e. determining a range to a selected point on golf course) using same/equivalent structure (i.e. distance measuring/measurement means) for same purpose (i.e. to provide golf advice such as suggesting club type).

Alternatively, where distance is longer than short distances, Zeiner-Gundersen does not suggest use of laser to ascertain distance for longer than a short distance to suggest a club type (present invention is not so limiting to a relative defined distance such as long) since Zeiner-Gundersen uses mil radian process for longer than short distances such as along fairway or from tee (2:46-48) to suggest wood or iron that is similarly equivalent to claimed process. Finally, alternatively, in a related reference, Hines (abstract, 2:21-44, 7:3-8:25, 9:50-10:64, 19:14-21:27) discloses a laser rangefinder in golf application that measure from any point on course to another point for range determination. Hines is analogous art at least due to either being in the field of applicant's endeavor of a laser rangefinder used in golf to determine range or, each is reasonably pertinent to the particular problem with which the applicant was concerned of using a laser range-finder to determine range in golf. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The level of ordinary skill in the art is as representative of the skill level of the aforementioned references. Thus, in consideration of KSR, because Zeiner-Gundersen (in combination with Wilens) and Hines each teach methods of player input of a range to target, it would have been obvious to an artisan to substitute one method (laser rangefinder) for the other (mil radian) to achieve the predictable result of input of range to target using a laser range-finder. The suggestion for use of laser rangefinder over mil-radian process is implicit in the accuracy of

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the technology, i.e. improved accuracy of distance to target reading for improved club selection.

The fact that laser rangefinder is inherently more accurate than mil radian is known to an artisan as admitted by Counsel/Appellant on page 6, line 6-7 of the reply, filed May 21, 2008, that states in part 'A laser rangefinder is inherently more accurate than an optical mil-radian approach'.

Alternatively, in consideration of US Supreme Court decision in KSR, it would have been obvious to apply the process of a laser range-finder as taught by Hines to improve the method and instrument of Zeiner-Gundersen in view of Wilens for the predictable result of improved accuracy of distance reading that likewise would improve club suggestion based on the improved distance reading. Zeiner-Gundersen includes use of laser for determining range that further is evidence that the combination of Zeiner-Gundersen (with Wilens) and Hines would yield predictable results when an artisan considers the combination as a whole at a time prior to the invention. This holding is not suggesting replacing the short distance measuring means with a laser rangefinder but rather as in evidence in prior holding reiterated herein, it is substituting the laser rangefinder for the mil radian process. Finally, the evidence shows that when the combination of Zeiner-Gundersen, Wilens and Hines is taken as a whole by an artisan at a time prior to the invention, it suggests to the artisan a method comprising claimed steps including entering other factors as taught by Wilens and using a laser rangefinder as taught by Hines to improve the accuracy of the advice provided and to provide advice based in part on environment and game state [i.e. distance to hole, golf ball type, and environment on course].

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zeiner-Gundersen in view of Wilens and Hines as applied to claim 23 above, and further in view of Mauritz. This holding is maintained from pages 6-8, paragraph 4 of Final Official Action

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mailed 11/7/08 as re-emphasized in Advisory mailed 3/8/09 and reiterated as clarified next

Reply to Appellants' asserted patentability is provided below and incorporated herein. Zeiner-Gundersen in view of Wilens and Hines discloses/suggests claimed invention/method (*supra*) but lacks computing at least said suggested club type and an associated representative user range for said at least one other club type for retention in said data store since Zeiner-Gundersen discloses player entering user performance data for each club type they will use and storing the entered performance data for each club type (abstract, 2:13-55, 3:6-67, 4:55-5:7, 5:58-6:4, figs 1-5, ref 14). Similar to player entry of driving distance for clubs as taught by Zeiner-Gundersen, Appellant's instant disclosure states (paragraph 18 of pg-pub 2005/0221905) embodiment for a user to enter a plurality of club types and associated ball driving distances in lieu of computing them itself. Thus Zeiner-Gundersen teaches claimed function where 'computing at least one suggested club type and an associated representative user range for said at least one other club type for retention in said data store' is entering one other club type and associated representative user range for said at least one club type (abstract, 2:13-55, 3:6-67, 4:55-5:7, 5:58-6:4, figs 1-5, ref 14) since the computing is not performed by any structure and the claimed computing includes player entry of the data for another club [as the iterative entering each club type in set of clubs and their associated representative user ranges] as that player calculated their associated performance for that club. A disclosure that anticipates under Section 102 also renders the claim invalid under Section 103, for 'anticipation' is the epitome of obviousness. *Connell v. Sears, Roebuck, & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983) (citing *In re Fracalossi*, 681 F.2d 792 (CCPA 1982)). However, in a related reference, Mauritz discloses recommending a particular golf club type for a range based on personal data (abstract, 1:47-2:14, and figs. 1-4). The Office

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maintains that Mauritz determination for suggesting a particular club type for a range based on personal data is performing same computing function claimed by Appellant. As further evidence of Mauritz use of personal data in a table performing the computing function, Appellants' state an admission that once a distance is known for one or more clubs, the determination of relative ranges for the other clubs in a set can be determined by use of a look-up table, a simple algorithm or similar technique by their statement that 'The greatest distance factors are mechanics and club head speed which results in a demonstrated distance for a particular club. Once that is known for one of more clubs, the determination of relative ranges for the other clubs in a set can be determined. These ranges can be found by a look-up table, a simple algorithm or similar technique. This step can be accomplished by a myriad of means; all of which are well known to one skilled in the art' as Appellant remarked @ 8:13-18 in their amendment received Nov 29, 2007. The Office maintains that Appellant statement is an admission that once a distance for one or more clubs is known, an artisan can determine the relative ranges for the other clubs in a set by using a look-up table, a simple algorithm or similar technique (supra). The Office maintains that the use of personal information in a table as taught by Mauritz for determining a suggested club type for a range is a 'look-up table, simple algorithm or similar technique' as would be interpreted by an artisan as equivalent to examples admitted for 'computing at least said suggested club type and an associated representative user range for said at least one other club type for retention in a data store'. The lack of criticality of manner of computing at least one suggested club type and an associated representative user range for said at least one other correlated data set is due to admission clearly stating 'found by a look-up table, simple algorithm or similar technique' and 'can be accomplished by a myriad of means; all of which are well

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known to one skilled in the art' (sic). Similarly, Zeiner-Gundersen enters user height and weight as a power factor or other factor used in extrapolating a suggested club based on range to target (abstract, 2:13-55, 3:6-67, 4:55-5:7, 5:58-6:4, 6:43-44, figs 1-5, ref 14); while, Mauritz also relies in part on personal data of golfer such as height and weight (sic). The level of ordinary skill in the art is as representative of the skill level of the aforementioned references. Where a golfer/user may not know the personal performance range of a particular golf club type such as might occur prior to initial use of a particular golf club type, it would have been obvious to an artisan at a time prior to the invention to apply process of 'computing at least said suggested club type and an associated representative user range for said at least one other club type' as based on personal performance characteristic such as height and weight of golfer as taught by Mauritz as an admitted equivalent process to improve the golf device of Zeiner-Gundersen in view of Wilens and Hines for the predictable result of using personal user data to suggest a club type including consideration of a new/different golf club type where player has no prior performance history with at least one other club type. Alternatively, because Zeiner-Gundersen, [in view of Wilens and Hines], Mauritz and Appellant admitted process to determine [i.e. computing] ranges for other clubs in a set based on a look-up table, a simple algorithm or similar technique teach methods for entering golf club type and their associated representative ranges to a data store, it would have been obvious to an artisan at a time prior to the invention to substitute one method for the other to achieve the predictable result of entering golf club type and their associated representative user ranges to a data store. The 'for retention in data store' is taught by Zeiner-Gundersen for storing performance data regarding club type and their associate representative ranges for use in suggesting club type (abstract, 2:13-55, 3:6-67, 4:55-5:7, 5:58-6:4, figs 1-4) as

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remarked in paragraph 8, pages 17-19 in Official action mailed Nov 7, 2008 in reply to Counsel/Appellant remarks regarding data store incorporated herein.

Claims 1-7, 10, 12, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeiner-Gundersen (6059672) in view of Mauritz (5283732) and Hines (5933224). This holding is maintained from paragraph 5 of Final Official Action mailed 11/7/08 as re-emphasized in Advisory mailed 3/8/09 and reiterated as clarified next. Reply to Appellants' contentions is provided below and incorporated herein. Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure. However, examples of claim language, although not exhaustive, that may raise a question as to the limiting effect of the language in a claim are (A) "adapted to" or "adapted for" clauses; (B) "wherein" clauses; and (C) "whereby" clauses. The determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), the court held that when a "whereby" clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention." *Id.* However, the court noted (quoting *Minton v. Nat 'l Ass 'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)) that a "whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited.'" *Id.* In this case, the 'wherein' clauses do not specify a condition that is material to patentability or they simply express an intended result of process; however, the claimed clauses were treated. Also, while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the

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prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original).

The teachings of Zeiner-Gundersen discussed above with respect to claim 23-24 is incorporated herein as reiterated next. As evidence above shows, Zeiner-Gundersen discloses a rangefinding instrument (2:49-51, 6:43-44) comprising a user input for providing data to said instrument indicative of at least one golf club type and at least one user range for said at least one golf club type and for entering a ground condition at selected point for possible alteration of suggested club type based on range and ground condition (abstract, 2:13-55, 3:6-4:17, 4:55-5:7, 5:58-6:4, 6:43-44, figs 1-5, ref 14), a data store associated with the instrument and user input for maintaining the at least one golf club type and at least one representative user range for the at least one golf club type (abstract, 2:13-55, 3:6-67, 4:55-5:7, 5:58-6:4, 6:43-44, figs 1-5, ref 14), a processor coupled to data store (abstract, 2:13-55, 3:6-67, 4:55-5:7, 5:58-6:4, 6:43-44, figs 1-5, ref 20), a laser rangefinder for short distances or optic rangefinder (5:18-25, 6:43-44, ref 24), an in-sight display coupled to the processor and said laser rangefinder for indicating a suggested club type based on correlated data set and determined range to selected point for indicating a suggested golf club type for short distances or an optic rangefinder, to indicate a determined

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range, wherein said display is an in-sight display, to indicate angular inclination of selected point, to indicate wind speed and direction, to indicate ground condition, entering user identification associated with correlated data sets (abstract, 2:13-55, 3:6-67, 4:17-5:25, 5:42-7:25, ref 22), a tilt sensor (abstract, 2:13-55, 3:6-67, 4:19-38, 5:26-41, figs. 1-5, ref 30, 32), a wind speed and direction sensor (3:52) but lacks the processor performing claimed function of 'computing at least one other correlated data set indicative of another golf club type and associated representative user range based upon a relationship in said first correlated data set' (claim 1 and 26) that is same as function above in claim 24 where Zeiner-Gundersen discloses player entering user performance data for each club type they will use (supra). Thus, discussion above regarding claim 24 is incorporated herein.

Further, as stated above with regards to claim 23 is reiterated herein, Zeiner-Gundersen discloses use of a short distance measuring means (2:49-51, 6:43-44) as a rangefinding instrument for short distances for suggesting an iron in a short game and a fairway distance measurement means for determining a range to a specific point on the golf course for suggesting a wood or iron along a fairway (2:47-48) for golf advice of a club type that is performing same function (i.e. determining a range to a selected point on the golf course) using same/equivalent structure (i.e. distance measuring/measurement means) for same purpose (i.e. to provide golf advice for suggesting club type), supra. MPEP 2114. Thus, to extent that Zeiner-Gundersen teaches a distance measuring device whether that be short distance measuring means for short distances (2:49-51, 6:43-44) or optical mil radian process of fairway distance measurement means, i.e. longer than short distances, (2:46-48), the instrument of Zeiner-Gundersen with distance measuring/measurement means performs same function of determining a range to a

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selected point on a golf course using same or equivalent technology for same purpose to use the determined distance to provide golf advice as in facts show in claim 23 incorporated herein.

Also, as stated above with respect to claim 23 incorporated herein, where distance is longer than short distances, Zeiner-Gundersen does not suggest use of short distance measuring means as a laser to determine a range/distance for longer than a short distance for suggesting a club type since Zeiner-Gundersen uses mil radian process for longer than short distances such as along fairway or from tee (2:46-48) for suggesting wood or iron that thus is using equivalent structure performing same function for same purpose (*supra*). Alternatively, in a related reference, Hines (abstract, 2:21-44, 7:3-8:25, 9:50-10:64, 19:14-21:27) discloses a laser rangefinder in golf application that measure from any point on course to another point for range determination. Hines is analogous art at least due to either being in the field of applicant's endeavor of a laser rangefinder used in golf to determine range or, each is reasonably pertinent to the particular problem with which the applicant was concerned of using a laser range-finder to determine range in golf. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The level of ordinary skill in the art is as representative of the skill level of the aforementioned references. Thus, in consideration of KSR, because Zeiner-Gundersen (in combination with Mauritz) and Hines each teach methods of player input of a range to target, it would have been obvious to an artisan to substitute one method (laser rangefinder) for the other (mil radian) to achieve the predictable result of input of range to target using a laser range-finder. The suggestion for use of laser rangefinder over mil-radian process is implicit in the accuracy of the technology, i.e. improved accuracy of distance to target reading for improved club selection. The fact that laser rangefinder is inherently more accurate than mil radian is admitted by

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Counsel/Appellant on page 6, line 6-7 of the reply filed May 21, 2008 that states in part 'A laser rangefinder is inherently more accurate than an optical mil-radian approach.'

Alternatively, in consideration of KSR, it would have been obvious to apply the process of a laser rangefinder as taught by Hines to improve the instrument of Zeiner-Gundersen in view of Mauritz for the predictable result of improved accuracy of distance reading that would also improve club suggestion based on the improved distance reading. Zeiner-Gundersen includes use of short distance measuring means for determining a range that further is evidence that the combination would yield predictable results when an artisan considers the combination as a whole at a time prior to the invention. Thus the evidence shows that when the combination of Zeiner-Gundersen, Mauritz, and Hines is taken as a whole by an artisan at a time prior to the invention, it suggests to the artisan a golf range finding instrument comprising claimed features/steps including computing at least one other correlated data set indicative of another golf club type and associated representative user range based upon a relationship in said first correlated data set as taught by Mauritz in light of Appellants admission and using a laser rangefinder as taught by Hines to improve the accuracy of the advice provided and to provide advice based in part on club type and its user range including for a new club for that golfer (supra).

Claims 8-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeiner-Gundersen in view of Mauritz and Hines as applied to claim 1 above, and further in view of Jenkins (5294110) or Jones (4136394). This holding is maintained from paragraph 6 of Final Official Action mailed 11/7/08 as re-emphasized in Advisory mailed 3/8/09 that is clarified and restated next. Reply to Appellants' asserted patentability is provided below and incorporated

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herein. Zeiner-Gundersen in view of Mauritz and Hines discloses claimed instrument (*supra*) except entering a wind speed and direction where such entry is manual entry at least since Zeiner-Gundersen includes a wind speed and direction sensor (4:39-48). In related references, Jenkins (abstract, 2:27-3:3, 3:43-6:29, 6:55-8:60, figs 1-15) and Jones (abstract, 1:63-2:47, figs 1-10, ref 22, 23) each disclose an instrument teaching user input for entering a wind speed and direction for possible alteration of suggested club type based upon determined range. The level of ordinary skill in the art is as representative of the skill level of the aforementioned references. In consideration of US Supreme Court decision in KSR, because Zeiner-Gundersen (in view of Mauritz and Hines) and Jenkins or Jones each teach methods of entering wind data including its speed and direction for suggesting a club type based on range to target, it would have been obvious to an artisan at a time prior to the invention to substitute one method (wind speed and direction sensor) for the other (manual entry of wind speed and direction) to achieve the predictable result of indicating a suggested golf club type based on correlated data sets, determined range and manually entered extrinsic factors of wind speed and direction. Also, it is known to an artisan to be obvious to perform manually the steps of a prior automated process that accomplishes the same result is not sufficient to distinguish over prior art; which is the case here as suggested by Jenkins or Jones.

Further, regarding scope of display to indicate wind speed and direction is analogous to discussion above regarding display indicating wind speed and direction, inclination and a ground condition that is incorporated herein in that Zeiner-Gundersen teaches display is operative to indicate wind speed, direction and ground condition (fig 5) or combination Zeiner-Gundersen in view of Mauritz, Hines and further Jenkins or Jones suggests to an artisan when taken as a whole

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at a time prior to the invention an instrument further comprising display is operative to indicate wind speed, direction and ground condition as suggested by Jenkins (abstract, 2:27-3:3, 3:43-6:29, 6:55-8:60, figs 1-15) or Jones (fig 1, ref 19, 22, 23) as adjusted value based on input parameters. Finally, the lack of criticality as to manner of entering wind data is noted with respect to manual or automated (i.e. sensor) input.

Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeiner-Gundersen in view of Mauritz and Hines as applied to claim 26 above, and further in view of Wilens. This holding is maintained from paragraph 7 of Final Official Action mailed 11/7/08 as re-emphasized in Advisory mailed 3/8/09 that is clarified and restated next. Reply to Appellants' asserted patentability is provided below and incorporated herein. Zeiner-Gundersen in view of Mauritz and Hines discloses/suggests claimed instrument that includes inclinometer (3:50-52, 4:24-26, 5:26-35), other factors being ground conditions and in-sight display displays other factors as ground condition (supra, fig 5), but lacks altitude of course, golf ball type. However, the claimed other factors of altitude and golf ball type are each known extrinsic factors that influence player performance as evidenced by Wilens (abstract, 2:20-5:35, 7:17-27, 11:1-4, 12:28-33, 12:60-13:28, 13:59-16:39, figs. 1-41) in that Wilens discloses a computerized golf data reporter, advisor unit and method teaching use/displaying of extrinsic factors such as golf ball type, altitude, and barometric pressure for providing golf advice of club type based upon extrinsic factors that effect player performance. Wilens is analogous art at least due to either being in the field of applicant's endeavor of a method and instrument to provide golf advice or, for being reasonably pertinent to the particular problem with which the applicant was concerned of an instrument and method using extrinsic factors as 'other factors' to provide golf club advice.

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See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The level of ordinary skill in the art is as representative of the skill level of the aforementioned references. Thus, in consideration of US Supreme Court decision in KSR, because Zeiner-Gundersen (with Mauritz and Hines) and Wilens each teach methods of player input of other factors such as ground condition to obtain golf club advice based on extrinsic other factors entered, it would have been obvious to an artisan at a time prior to the invention to apply the process of entering other factors of golf ball type, altitude and barometric pressure to obtain golf club advice as taught by Wilens to improve the golf instrument and method of Zeiner-Gundersen in view of Mauritz and Hines for the predictable result of extrapolating golf club advice based on extrinsic other factors that effect player performance (abstract, 2:20-5:35, 7:17-27, 11:1-4, 12:28-33, 12:60-13:28, 13:59-16:39, figs. 1-41). Essentially, the invention with claimed other factors fails to critically distinguish over the combined teachings of Zeiner-Gundersen in view of Mauritz and Hines and further Wilens for a method and instrument that extrapolates a suggested golf club type appropriate to the determined range from entered club type, associated user range, inclination, wind speed and other extrinsic factors that effect player performance.

Regarding displays inclination to said point, inclination is another ground condition that is an extrinsic factor that effects performance and Zeiner-Gundersen uses an inclinometer (3:50-52, 4:24-26, 5:26-35) and displays inclination to said point as it relates to shot (fig 5). Zeiner-Gundersen in view of Mauritz and Hines and further Wilens further include displaying inclination to said point when displaying range as stated in evidence in claim 29 above and incorporated herein.

(10) Response to Argument

In reply to Appellant contention on page 6 that Zeiner-Gundersen is primarily directed towards a computerized device for training a golfer in his or her short game, the Office agrees that the reference stresses the short game, but maintains that the reference teaches use of the computerized device along the fairway to suggest a wood that as known to an artisan is not used in the short game. Thus, although Zeiner-Gundersen emphasizes training golfer in their short game, the computerized device is functional for use at any location on the course including from tee or along fairway due to suggesting wood or iron based on distance (2:46-51). Hence, the Office agrees that Zeiner-Gundersen emphasizes short game; however, the reference does not preclude use for longer than short game play and the Appellant provided no factual evidence that the reference does not operate when the distance is longer than short.

In reply to Appellant contention on page 6-7 that Zeiner-Gundersen fails to teach or suggest 'determining a range to a selected point on a golf course with said rangefinding instrument using a laser rangefinder' since Appellant asserts that the reference 'simply does not disclose a laser rangefinder', the Office notes that the evidence shows the reference includes two distance measuring means as short distance measuring means by a laser for short distances and a second as fairway distance measurement means that uses optical mil radian approach for longer than short distances, thus the Office disagrees for reasons stated next.

First, where claimed distance being measured is not relatively defined, Zeiner-Gundersen uses a short distance measuring mean as a laser to determine a distance for short distances (2:49-51, 6:43-44) for suggesting an iron as a club type based on determined distance that is same function [i.e. determining a range to a selected point on a golf course with a rangefinding

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instrument] using equivalent structure to claimed structure [based on instant disclosure at page 4 stating in part ‘other possible rangefinding technologies may be employed’ that is a declaration of lack of criticality of the particular technology used to determine a range or measure a distance therein] for same purpose [i.e. suggest a club type based on determined distance and user performance] where the claimed scope of determining a range... with a rangefinding instrument using a laser rangefinder fails to preclude laser distance measuring means of Zeiner-Gundersen as equivalent to claimed function. In arguendo, even if the short distance measurement means of Zeiner-Gundersen is not a laser rangefinder, the short distance measurement means of Zeiner-Gundersen that uses a laser to determine distance is equivalent to claimed rangefinding instrument using a laser rangefinder due to aforementioned statement on page 4 of instant application that other possible rangefinding technologies may be employed. Therefore the claimed laser rangefinder fails to critically distinguish over equivalent rangefinding technology of short distance measuring means of Zeiner-Gundersen. An Applicant’s expressed recognition of an art-recognized or obvious equivalent may be used to refute an argument that such equivalency does not exist. *Smith v. Hayashi*, 209 USPQ 754, 759 (Bd of Pat. Inter. 1980). MPEP 2144.06.

Second, where claimed distance being measured is not relatively defined (i.e. long), Zeiner-Gundersen uses a fairway distance measurement means for longer than short distances to suggest wood or iron based on determined distance (2:46-48, 5:18-25) performing same function [i.e. determining a range to a selected point on a golf course with a rangefinding instrument] using equivalent structure to claimed structure [based on aforementioned page 4 disclosure] for same purpose [i.e. suggest a club type based on determined distance and user performance]

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where the claimed scope of determining a range... with a rangefinding instrument using a laser rangefinder fails to critically distinguish over equivalent rangefinding technology of fairway distance measuring means of Zeiner-Gundersen as equivalent to claimed function for disclosed 'other possible rangefinding technologies', sic. An Applicant's expressed recognition of an art-recognized or obvious equivalent may be used to refute an argument that such equivalency does not exist. *Smith v. Hayashi*, 209 USPQ 754, 759 (Bd of Pat. Inter. 1980). MPEP 2144.06.

Third, in response to argument on page 6, that Zeiner-Gundersen fails to teach or suggest a laser rangefinder, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The standard of patentability remains as what the combination of prior art suggests to an artisan when taken as a whole at a time prior to the invention. In this case, when Zeiner-Gundersen in view of Hines (and Wilens or Mauritz, Jenkins or Jones, as applicable) is taken as a whole at a time prior to the invention, it suggests to an artisan a rangefinding instrument and method with a laser rangefinder performing claimed function to provide accurate distance measurement for any distance (Hines, abstract, 1:44-3:22, 8:18, 10:48) in an instructional aid to golfer to use while on golf course so as to improve the advice provided (Zeiner, abstract, 2:13-55), as in evidence above incorporated herein. Also, Appellant admits Hines discloses a laser rangefinder on page 8. The Office agrees Zeiner-Gundersen discloses a short distance measuring means as a laser (2:48-51, 3:12-14, 6:43-44) for determining a range to a selected point on a golf course (when the distance is short), but maintains the combination suggests to an artisan a rangefinding instrument and method a laser

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range finder for determining a range to a selected point on a golf course so as to improve the accuracy of determined range over mil radian [as admitted by Appellant remark on page 6 of Amendment (received March 21, 2008) that states in part 'A laser range finder is inherently more accurate than an optical mil-radian approach'] and thereby improve the advice provided as a result of improved determined range as in evidence in holding above incorporated herein.

Finally, regarding Appellant assertion on pages 6-7 that Zeiner-Gundersen lacks a laser range finder, the Office disagrees and maintains that evidence shows that Zeiner-Gundersen distance measuring means (short distance measuring means or fairway distance measuring means) or Zeiner-Gundersen in view of Hines laser range finder when taken as a whole at a time prior to the invention, suggests to an artisan a method including 'determining a range to a selected point on a golf course with said ranging instrument using a laser range finder' as in evidence above where laser range finder is not defined in claim to preclude teachings of Zeiner-Gundersen or Zeiner-Gundersen in view of Hines for claimed breadth and disclosed other possible ranging technologies (*supra*). MPEP 2144.06.

In reply to remark on page 7-8 that the Office improperly relies on Hines for teaching laser range finder to cure deficiencies of Zeiner-Gundersen in view of Wilens, the Office respectfully disagrees for reasons as stated above incorporated herein in that measuring means of Zeiner-Gundersen perform the function of determining a range to a selected point on a golf course with said ranging instrument' by equivalent structure due to disclosed 'other possible ranging technologies' for same purpose and thus does not improperly rely upon Hines. An Applicant's expressed recognition of an art-recognized or obvious equivalent may be used to refute an argument that such equivalency does not exist. *Smith v. Hayashi*, 209 USPQ 754, 759

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(Bd of Pat. Inter. 1980). MPEP 2144.06. “A disclosure that anticipates under Section 102 also renders the claim invalid under Section 103, for ‘anticipation is the epitome of obviousness.’” *Connel v. Sears, Roebuck Co.*, 722 F.2d 1542, 1548 (Fed Cir 1983) (citing *In re Fracalossi*, 681 F.2d 792 (CCPA 1982)).

Also, in response Counsel/Appellant remark on page 7-8 that the modification to the prior art invention would render that invention unsuitable for its intended purpose, the remark is not well taken for selective reading of facts in this case for following reasons.

First, as stated in first paragraph under topic Response to Argument herein, while the reference emphasizes short game, Appellant provides no factual evidence that Zeiner-Gundersen is solely or only for short game. Second, as stated in first paragraph under topic Response to Arguments herein, contrary to Appellant contention that the primary purpose of Zeiner-Gundersen is the short game, although the reference emphasizes the short game, the primary purpose of Zeiner-Gundersen is a device for improving the performance of a golfer (2:15-16) that does so by providing shot suggestions based in part on determined range and player performance data to include club type of wood and iron (*supra*). The Office maintains that if its primary purpose was for the short game, the reference would not suggest a wood club type but rather would only suggest an iron as a wedge (i.e. pitching wedge, a sand wedge, a lofting wedge) and/or a putter. However, since facts show Zeiner-Gundersen suggests wood and iron based in part upon determined range, an artisan would interpret the reference at a time prior to the invention as being usable for all aspects of game play on a hole of a course. Thus, its primary purpose is to improve the performance of a golfer for any location on golf course for any range. Emphasis for short game is an emphasis but not its primary purpose.

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Third, the facts of this case do not coincide with facts of *In re Gordon* since evidence stated above incorporated herein shows that although Zeiner-Gundersen emphasizes short game, the reference is for use for all facets of game play due to suggestion of a wood and iron club type (2:46-48) based in part upon determined distance and thus does not preclude use of instrument and method of Zeiner-Gundersen for other than short game. Since Zeiner-Gundersen is usable for facets of game play beyond just the short game (*supra*), as per the holding above incorporated herein, the proposed modification to substitute one method of the laser rangefinder taught by Hines for the other method of the mil radian process of Zeiner-Gundersen for determining a range to a selected point on a golf course with a rangefinding instrument of a laser rangefinder or to apply laser rangefinder as taught by Hines to improve the instrument and method of Zeiner-Gundersen for the predictable result to improve the accuracy of determined range (as admitted by Appellant on page 6, line 6-7 of amendment mailed May 21, 2008 that states in part 'A laser rangefinder is inherently more accurate than an optical mil radian approach') as stated in holding above incorporated herein would not render that reference unsatisfactory for its intended purpose since its purpose remains to improve the performance of a golf regardless of location on course. Therefore, contrary to Appellant's opinion, the facts of this case do not coincide with *In re Gordon* since the instrument and method of Zeiner-Gundersen is usable for entire course including fairway to tee by suggesting wood and iron based in part on determined range to point on golf course (*supra*).

In response to Appellant's assertion on page 8 that there is no teaching in Hines to determine curvature of the green, the remark is not well taken since Hines is not relied upon to perform that function since Zeiner-Gundersen includes structure performing that function as

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admitted by Appellant in their remark on page 6-7 and holding clearly stated substituting laser rangefinder for mil radian process (*supra*).

Regarding Appellant assertion in paragraph 3 on page 8-9 that the proposed modification would change the principle of operation of Zeiner-Gundersen, the Office disagrees for same reasons stated above incorporated herein in that although the reference emphasizes the short game, its primary function is for improving the performance of a golfer and does so by providing advice along entire length of golf course by suggesting wood and iron based in part on determined distance (*supra*). Further, the holding states substituting laser rangefinder for mil radian approach (*supra*) and thus does not change the principle operation since the scanner in Zeiner-Gundersen continues to perform that function (*supra*).

In reply to Appellant argument in paragraph 4 on page 9-10 that Zeiner-Gundersen teaches away from combination with Hines where in essence Appellant restates prior arguments as basis therein, the Office disagrees since Zeiner-Gundersen discloses a method but that process does not teach away from what the combination suggests to an artisan when taken as whole at a time prior to the invention as facts show in above paragraphs that replies to each corresponding reiterated prior argument under topic Response to Arguments that is incorporated herein with due consideration of disclosed statement on page 4 that other possible rangefinding technologies may be employed as evidence (*supra*), consideration that breadth of claimed invention does not define a relative distance to be determined (i.e. long or short range), that Hines is not relied upon to determine curvature of green since Zeiner-Gundersen has structure performing that function as admitted by Appellant (*supra*). MPEP 2144.06. Thus, in this case, the Office maintains that the combination when taken as a whole at a time prior to the invention, it suggests

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to an artisan a rangefinding instrument and method with a laser rangefinder performing claimed functions to provide accurate distance measurement (Hines, abstract, 1:44-3:22, 8:18, 10:48) in an instructional aid to golfer to use while on golf course so as to improve the advice provided (Zeiner, abstract, 2:13-55), as facts show in holding above incorporated herein.

In response to Appellant remark in paragraph 5 on page 10 that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The standard of patentability remains as stated above incorporated herein what the combination of prior art suggests to an artisan when taken as a whole at a time prior to the invention. As facts in this case shows as stated above incorporated herein, when Zeiner-Gundersen in view of Hines (and Wilens or Mauritz, Jenkins or Jones, as applicable) is taken as a whole at a time prior to the invention, it suggests to an artisan a rangefinding instrument and method with a laser rangefinder performing claimed functions to provide accurate distance measurement (Hines, abstract, 1:44-3:22, 8:18, 10:48) in an instructional aid to golfer to use while on golf course so as to improve the advice provided (Zeiner, abstract, 2:13-55). The basis for combination is as stated in holding above and incorporated herein, that disclosure indicates lack of criticality of laser rangefinder due to statement on page 4 that 'other possible rangefinding technologies may be employed' as an admission of equivalence of various technologies for determining range. An Applicant's

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expressed recognition of an art-recognized or obvious equivalent may be used to refute an argument that such equivalency does not exist. *Smith v. Hayashi*, 209 USPQ 754, 759 (Bd of Pat. Inter. 1980). MPEP 2144.06. Alternatively, the basis is as stated in holding that the improved accuracy of laser rangefinder over the approximation of mil radian process is known by an artisan as admitted by Appellant in amendment, received May 21, 2008 on page 6, lines 6-7 therein, that states in part 'A laser rangefinder is inherently more accurate than an optical mil radian approach'. Thus, the Appellant stated their agreement of the inherency as basis in record.

Regarding remark on page 10-11 that claim 24 is allowable based on dependency to claim 23, the Office disagrees for reasons stated above incorporated herein.

In reply to Appellant argument on page 11 regarding claim 24 that there is insufficient factual basis to support prima facie case of obviousness, the Office disagrees since prior final action on page 6, paragraph 4 (as well as similar use of admission in paragraphs 5) provided facts of basis of holding, and the selective summary of holding for claim 24 provided by Appellant is not well taken for not being timely filed in response to the issue when first raised since the Office first applied stated admission (as stated in the Nov 11, 2007 Amendment) for cited claims over same art in final mailed 3/21/08, but Appellant did not dispute in their first response after that final action (which was their response received May 21, 2008). However, the Office maintains as stated in holding above that statements cited from Nov 11, 2007 amendment is evidence on record that computing at least said suggested club type and an associated representative user range for said at least one other club type for retention in a data store' is a known process to an artisan as admitted by Appellant/Counsel and is incorporated herein. Also, the manner of computing is not critical due to stated admission of process states in part 'The

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greatest distance factors are mechanics and club head speed which results in a demonstrated distance for a particular club. Once that is known for one or more clubs, the determination of relative ranges for the other clubs in a set can be determined. These ranges can be found by a look-up table, a simple algorithm or similar technique. This step can be accomplished by a myriad of means; all of which are well known to one skilled in the art.' The Appellant provided that response in reply to holding in first action on merits and Office accepted the response as admission on record that the process was well known to artisan as the statement clearly indicates and the Office subsequently applied the admission as additional evidence of obviousness of art previously applied. Thus, the Appellant is confusing record at a juncture in prosecution before the Board where evidence is contrary to Appellant present position that opens the record for Office to wonder whether reply Nov 11, 2007 fully addressed holding to which those statements were submitted to address. This is not a re-opening that prior issue, but is emphasizing timing for taking exception to Appellants stated admission is improper and not well taken when the Office merely applied Appellant admission as additional evidence of combination of art previously applied and continues to be applied over same invention and the timing for Appellant to have taken exception or raised that issue was after final mailed May 21, 2008 rather than presently. Finally, Zeiner-Gundersen stores club type and its associated representative user ranges for use in suggesting club type (abstract, 2:13-55, 3:6-67, 4:55-5:7, 5:58-6:4, figs 1-4) as remarked in paragraph 8, pages 17-19 in Official action mailed Nov 7, 2008 incorporated herein that was in reply to Counsel/Appellant remarks regarding data store.

In reply to Appellant argument on page 11 that claims 1-7, 10, 12, 26 and 30 are allowable due to claiming a 'laser rangefinder for determining a range to a selected point on a

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golf course', the Office disagrees for same reasons stated in holding and in Reponse to Arguments above incorporated herein.

In response to Appellant remark on page 12-13 that claims 8-9 and 11 are allowable based on dependency to clam 1, the Office disagrees for same reason stated in holding and Response to Arguments above incorporated herein. Further in reply to Appellant assertion on page 12-13 that the holding fails to comply with 35 USC 132, the Office disagrees since the lack of criticality with regard to manner of entering wind data is as stated in holding that it is known to an artisan to be obvious to perform manually the steps of a prior automated process that accomplishes the same result is not sufficient to distinguish where evidence of performing manually the step of entering wind data is as shown by Jenkins and Jones while Zeiner-Gundersen in view of Mauritz and Hines automatically enter the wind data via wind speed and wind direction sensor.

Regarding the Appellant allegation on page 13 that the Office failed to show where the references taught claimed feature/function is not well taken in light that the evidence is clearly evident to an artisan as shown on face of both Jenkins and Jones. Regarding Appellant remark that there is no valid reason to modify, the Office disagrees since the holding clearly stated basis for obviousness was with respect to perform manually the steps of a prior automated process that accomplishes the same result. In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent- mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held

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that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.). Although, case discusses making a manual process perform automatically, the reversal is equally valid where process accomplishes same result, as is the case by teachings of Jenkins or Jones.

Regarding remark on page 14 that claims 27-28 are allowable based on dependency to claim 26, the Office disagrees for same reasons stated in holding and Response to Arguments above incorporated herein.

Thus, the totality of Applicant rebuttal evidence of non-obviousness fails to outweigh the combination of prior art Zeiner-Gundersen in view of Wilens, Hines, Mauritz, Jenkins, or Jones, (as appropriate) when taken as a whole at a time prior to the invention as suggesting to an artisan the instrument and method including a laser rangefinder performing claimed functions and steps as in evidence herein (sic).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/M. Sager/
Primary Examiner, Art Unit 3714

Conferees:

/Dmitry Suhol/

Supervisory Patent Examiner, Art Unit 3714

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